

AIR QUALITY

SUMMARY PROOF OF EVIDENCE OF
DANIEL SMYTH BSC (JT HONS) MSC DIC
ON BEHALF OF WILTSHIRE COUNTY COUNCIL

PUBLIC INQUIRY INTO:

WILTSHIRE COUNTY COUNCIL PLANNING APPLICATION W07.09002
LAND TO THE EAST AND NORTH OF WESTBURY, WILTSHIRE, DEVELOPMENT:
CONSTRUCTION OF A SINGLE CARRIAGEWAY ROAD WITH CLIMBING LANE
OVER PART OF THE ROUTE, ROUNDABOUT JUNCTIONS, ASSOCIATED
INFRASTRUCTURE

CALLED IN FOR DETERMINATION BY THE SECRETARY OF STATE,
COMMUNITIES & LOCAL GOVERNMENT (SECTION 77 TOWN AND COUNTRY
PLANNING ACT 1990 AS AMENDED)

THE WILTSHIRE COUNTY COUNCIL (A350 WESTBURY BYPASS CLASSIFIED
ROAD) COMPULSORY PURCHASE ORDER 200'

THE WILTSHIRE COUNTY COUNCIL (A350 WESTBURY BYPASS CLASSIFIED
ROAD) SIDE ROAD ORDER 200'



1. Introduction

The Witness

- 1.1 My name is Daniel Smyth. I am a Technical Director at RPS, responsible for its specialist centre for Air Quality, based in Brighton. I hold a BSc with joint honours in Physics and Mathematics from Aberystwyth University, a Diploma and an MSc in Environmental Technology, from Imperial College, London. I have worked in the field of air quality for approximately fifteen years and am one of the senior specialists for this type of activity within the RPS Group.
- 1.2 RPS' air quality group specialises in assessing the effects on the environment of emissions to air associated with transportation, industry, construction, mineral extraction and the waste industry. The company is a member of the National Society for Clean Air (now Environmental Protection UK) and the International Air Pollution Standing Conference.
- 1.3 I have specialised in air quality assessment for the impacts of transport, commercial and industrial sources using a wide range of techniques, including air quality monitoring and computer dispersion modelling, to examine the impacts on local air quality.
- 1.4 I have designed and undertaken numerous detailed computer modelling assessments to predict the impacts of a wide variety of projects for assessment against the objectives specified in the UK Air Quality Strategy and other relevant criteria. This has involved the compilation and review of pollutant emission factors for relevant sources.
- 1.5 My evidence is presented in relation to the planning application by Wiltshire County Council for the construction of a new single carriage bypass east of Westbury, the proposed A350 Westbury Eastern Bypass (the Scheme), which is subject to the Secretary of State's call-in policy on grounds '*that the proposals may conflict with national policies on important matters*'.
- 1.6 The proposed bypass is located within the District of West Wiltshire. An Air Quality Management Area has been declared in Westbury due to elevated concentrations of traffic related pollutants. Through an Air Quality Action Plan, West Wiltshire District Council has set out measures intended to reduce traffic related pollutants to levels which are not deemed to be harmful to human health.
- 1.7 I have concentrated on the assessment of effects on air quality at locations where people are likely to be exposed over extended periods of time. This focuses mainly on residential locations. I examine the predicted effects of the scheme on air quality close to the route of the bypass and also in Westbury town centre, where traffic will be relieved. There are a

series of different polluting emissions in traffic exhaust, including unburnt hydrocarbons, carbon monoxide, particles and oxides of nitrogen (notably nitrogen dioxide). Of these, nitrogen dioxide and fine particles have been established as being the most important with respect to their potential impact on human health. For this reason, I focus on a consideration of the effects of the scheme in relation to these two pollutants.

- 1.8 In undertaking my assessment I consider the relevant legislation and policy relating to air quality assessment, evaluate existing air quality conditions in the town, recent trends in monitored concentrations and future predicted concentrations of nitrogen oxides and particulate matter. I consider the potential effects of the scheme proposal both on air quality within the town and also at locations along the route of the bypass that may be affected in the year of opening (2009) and the design year (2024).
- 1.9 It is difficult to predict accurately the effect of emissions on people who are exposed for transient periods in close proximity to sources of emissions (such as when walking along pavements close to trafficked roads and streets). This is not likely to be significant given the information available from the analysis undertaken in my evidence, but it is excluded. There may therefore be additional perceived beneficial effects that I have not quantified.
- 1.10 I have provided further analysis of the air quality effects at sites designated for ecological importance, at the request of Dr Keith Jones, to inform his evidence. The air quality effects at the sensitive ecological sites in the vicinity of the bypass are not considered to be potentially significant.
- 1.11 The basis for one of the objections to the scheme is that the bypass is not required to reduce levels of traffic related pollutants within Westbury as other factors are contributing to reduced traffic related emissions.
- 1.12 An analysis of monitored traffic related pollutants suggests that there is no evidence that levels of these pollutants are decreasing within Westbury.
- 1.13 The results of the modelling suggest that the bypass is likely to improve air quality at all locations in the centre of Westbury. A deterioration in air quality is predicted at some locations outside Westbury but in all cases, this is deemed to be negligible.
- 1.14 The strategy underpinning proposed European legislation is to aim for widespread improvements in air quality rather than at a small number of localised hotspot areas and an improvement at locations where people are likely to be exposed is therefore potentially beneficial. Consequently, improvements in Westbury are consistent with the aims of the European strategy.

- 1.15 Having considered all the evidence and for the reasons given above, I conclude that in the context of air quality effects, the proposed Westbury Eastern Bypass does not have any significant adverse effects and provides a small beneficial reduction in pollutant concentration within Westbury. This reduction is consistent with the objective set out in the European strategy to provide a reduction in exposure to pollution.